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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/023,633	12/17/2001	Chandrasekaran Nageswara Gupta	RNI-001-1P	3249

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LEGAL DEPARTMENT  
RAZA MICROELECTRONICS, INC.  
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CUPERTINO, CA 95014

EXAMINER

CHANG, RICHARD

ART UNIT	PAPER NUMBER
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2616

DATE MAILED: 04/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/023,633

Applicant(s)

GUPTA ET AL.

Examiner

Richard Chang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-10,12-14,16-29 and 31-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3-10, 12-14, 16-29 and 31-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

1. Applicant's arguments and amendments, filed on 01/17/2006, with respect to claims 1, 3-10, 12-14, 16-29 and 31-42 have been fully considered but are moot in view of the new ground(s) of rejection.

Claims 2, 11, 15 and 30 had been canceled.

Claim 42 is newly added.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 36-37 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding to Claim 36, the claim is vague and indefinite because the short handed subject matter 'ECC' is undefined for a clear and definite claim.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over US patent No. 5,682,256 ("Motley et al.") in view of US patent 6,646,983 ("Roy et al.").

Regarding claims 1 and 12, Motley et al. teach a network node comprising:

a first network interface (10),

a cross connect switch coupled to the first network interface (RF links), and

a first multi-medium network interface (Optical links) coupled to the cross-connect switch (13), wherein optical signal can be converted from one modulation scheme to other interface scheme for RF signal at the switch interface (media abstraction) (See Fig. 1, Col. 2, lines 31-64).

Motley et al. teaches substantially all the claimed invention but did not disclose expressly the particular application involving limitations of

"a first TDM Framer/Deframer coupled to the first wireless interface and configured to deframe a first TDM frame from the first network interface,

a second TDM Framer/Deframer coupled to the first wireless interface and configured to form a second TDM data frame, and

a link quality management unit configured to adapt one or more parameters of the first wireless interface, wherein the cross connect unit is a Packet/TDM cross connect unit configured to process TDM data and packet data".

Roy et al. teaches a method and device for network switch wherein

a first TDM Framer/Deframer (60) coupled to the first wireless interface and configured to deframe a first TDM frame from the first network interface and a second TDM Framer/Deframer (60) coupled to the first wireless interface and configured to form a second TDM data frame (supporting SONET standard uses sub-STs payload mappings as Virtual Tributary structures thus supporting multiple TDM framer/deframer channels) (See Fig. 1, Col. 9, lines 21-33), and

a link quality management unit configured to adapt one or more parameters of the first wireless interface (76 shaper/scheduler) (See Fig. 1, Col. 15, lines 29-47), wherein the cross connect unit is a Packet/TDM cross connect unit configured to process TDM data and packet data supporting TDM/packet multimedia traffic (See Fig. 1, Col. 15, lines 14-33).

A person of ordinary skill in the art would have been motivated to employ Roy et al. in Motley et al. in order to obtain teach a network node and to take advantage of switch supporting TDM/packet multimedia traffic using multiple TDM framer/deframer on channel basis in claims 1 and 12.

The suggestion/motivation to do so would have been to support switch TDM/packet multimedia traffic using multiple TDM framer/deframer on channel basis, as suggested by Roy et al. in Col. 9, lines 21-33 and Col. 15, lines 29-47. At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine Roy et al. with the Motley et al. to obtain the inventions specified in claims 1 and 12.

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6. Claims 3-10, 13-14, 16-29 and 31-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over US patent No. 5,682,256 ("Motley et al.") in view of US patent 6,646,983 ("Roy et al.") and further in view of US patent 6,621,804 B1 ("Holtzman et al.").

Regarding claims 42, as discussed above, Motley et al. teaches substantially all the claimed invention but did not disclose expressly the particular application involving limitations of

"a modulation control unit configured to measure a signal quality of an incoming data stream and further configured to adapt the modulation of an outgoing data stream; and an error correction code encoding unit configured to add redundancy to the outgoing data stream".

Roy et al. further teaches a method and device for network switch wherein a modulation control unit configured to measure a signal quality of an incoming data stream (QOS level) and further configured to adapt the modulation of an outgoing data stream; and an error correction code encoding unit configured to add redundancy to the outgoing data stream (error correction and retransmission of packets) (See Col. 1, lines 34-54).

A person of ordinary skill in the art would have been motivated to employ Roy et al. in Motley et al. in order to obtain teach a network node and to take advantage of measuring a signal quality of an incoming data stream for QOS level and further adapting error correction and retransmission of packets in claim 42.

The suggestion/motivation to do so would have been to measure a signal quality of an incoming data stream for QOS level and further to adapt error correction and retransmission of packets, as suggested by Roy et al. in Col. 1, lines 34-54. At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine Roy et al. with the Motley et al. to obtain the inventions specified in claim 42.

Motley et al. and Roy et al. teach substantially all the claimed invention but did not disclose expressly the particular application involving limitations of

“a transmission power control unit configured to adapt the transmission power of the first wireless interface”.

Holtzman et al. teaches a method and device a control RF transmission power wherein a transmission power control unit configured to adapt the transmission power of the wireless interface (See Col. 2, lines 37-50).

A person of ordinary skill in the art would have been motivated to employ Holtzman et al. in Motley et al. and Roy et al. in order to obtain teach a network node and to take advantage of a transmission power control unit configured to adapt the transmission power of the wireless interface in claim 42.

The suggestion/motivation to do so would have been to configure to adapt the transmission power of the wireless interface, as suggested by Holtzman et al. in Col. 2, lines 37-50. At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine Holtzman et al. with the Motley et al. and Roy et al. to obtain the inventions specified in claim 42.

Regarding claims 3-4, as discussed above, these claims have limitations that is similar to those of claims 1 and Motley et al. further teaches that a cross connect switch coupled to the first network interface (RF links), and a first multi-medium network interface (Optical links) (See Fig. 1, Col. 2, lines 31-64), thus it is rejected with the same rationale applied against claim 1 above.

Regarding claims 5-6 and 39-41, as discussed above, these claims have limitations that is similar to those of claims 1 and 4 and Motley et al. further teaches that a cross connect switch coupled to the network interface (RF links) (See Fig. 1, Col. 2, lines 31-64), thus it is rejected with the same rationale applied against claims 1 and 4 above.

Regarding claims 7-10, as discussed above, these claims have limitations that is similar to those of claims 1 and Motley et al. further teaches that a cross connect switch coupled to a multi-medium network interface (Optical links) (See Fig. 1, Col. 2, lines 31-64), thus it is rejected with the same rationale applied against claim 1 above.

Regarding claims 12-14 and 16, as discussed above, Roy et al. further teaches that the cross connect unit is a Packet/TDM cross connect unit configured to process TDM data and packet data and a packet user interface coupled to the cross-connect switch and configured for packet based data (See Col. 1, line 60 to Col. 2, line 19).

A person of ordinary skill in the art would have been motivated to employ Holtzman et al. in Motley et al. and Roy et al. in order to obtain teach a network node and to take advantage of a Packet/TDM cross connect unit configured to process TDM



data and packet data and a packet user interface coupled to the cross-connect switch and configured for packet based data in claims 12-14 and 16.

The suggestion/motivation to do so would have been to adapt a Packet/TDM cross connect unit configured to process TDM data and packet data and a packet user interface coupled to the cross-connect switch and configured for packet based data by Roy et al. in Col. 1, line 60 to Col. 2, line 19. At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine Holtzman et al. with the Motley et al. and Roy et al. to obtain the inventions specified in claims 12-14 and 16.

Regarding claims 17-23, these claims have limitations that is similar to those of claims 14 and 16, thus it is rejected with the same rationale applied against claims 14 and 16 above.

Regarding claim 24-29, as discussed above, these claims have limitations that is similar to those of claims 1 and Motley et al. further teaches that the wireless RF signal is converted to electrical signal and similarly coupled to the optical signal is converted to electrical signal for proper communication (See Fig. 1, Col. 2, lines 39-49), thus it is rejected with the same rationale applied against claim 1 above.

Regarding claims 31-35, as discussed above, Holtzman et al. teaches that a transmission power control unit configured to adapt the transmission power of the wireless interface (See Col. 2, lines 37-50).

A person of ordinary skill in the art would have been motivated to employ Holtzman et al. in Motley et al. and Roy et al. in order to obtain teach a network node

and to take advantage of a transmission power control unit configured to adapt the transmission power of the wireless interface in claims 31-35.

The suggestion/motivation to do so would have been to configure to adapt the transmission power of the wireless interface, as suggested by Holtzman et al. in Col. 2, lines 37-50. At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine Holtzman et al. with the Motley et al. and Roy et al. to obtain the inventions specified in claims 31-35.

Regarding claims 36-37, as discussed above, these claims have limitations that is similar to those of claims 31, thus it is rejected with the same rationale applied against claim 31 above.

Regarding claim 38, as discussed above, Roy et al. further teaches that an error correction code encoding unit configured to add redundancy to the outgoing data stream (error correction and retransmission of packets) (See Col. 1, lines 34-54).

A person of ordinary skill in the art would have been motivated to employ Roy et al. in Motley et al. in order to obtain teach a network node and to take advantage of error correction and retransmission of packets in claim 38.

The suggestion/motivation to do so would have been to adapt error correction and retransmission of packets, as suggested by Roy et al. in Col. 1, lines 34-54. At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine Roy et al. with the Motley et al. to obtain the inventions specified in claim 38.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Chang whose telephone number is (571) 272-3129. The examiner can normally be reached on Monday - Friday from 8 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571) 272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*rk*

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